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Quality of work life for adults with mental retardation

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QUALITY OF WORK LIFE FOR ADULTS WITH MENTAL RETARDATION

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By

Theresa M. Woo

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ABSTRACT

QUALITY OF WORK LIFE FOR ADULTS WITH MENTAL RETARDATION

by Theresa M. Woo

This thesis investigated the quality of work life of adults with mental retardation who were enrolled in a work adjustment program. Legal foundations, definitions, measures, and vocational applications of quality of life are reviewed for adults with mental retardation. Recommendations for future research listed in previous studies are summarized. A survey entitled the Quality of Work Life Survey was devised to determine if there was a significant difference in using the survey in a pictorial and non-pictorial format. The sample consisted of 37 adults with mental retardation enrolled in a work adjustment program located in Santa Clara County.

Results of the study indicated while there were no significant differences between known and unknown responses, items pertaining to being a good and bad worker, and items pertaining to fast and slow worker, there was a significant difference in items pertaining to happy and sad worker. Recommendations for future research are discussed.

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CHAPTER 1

INTRODUCTION

Throughout life human beings compare themselves to others in measuring the quality of their lives. People can make the following comparisons in possessions and status to measure the quality throughout their lives: comparisons in clothing, grades in school, number and kind of friends, jobs, houses, and cars. In addition, people can measure the quality of their lives through a personal evaluation of their health status and feelings of being needed and loved as well as feelings of needing and loving others. It appears at times that the more material and personal resources one has, the richer one's quality of life is. Both individuals with and without disabilities face this issue of determining the quality of one's life. The more self-sufficient one is, the more monetary resources one possesses, and the more social supports one has, the more likely one is to rate life with a high degree of quality. Even though cultural and societal values influence quality of life, each individual must determine for themselves the quality of their lives based on their own adopted value systems.

One important aspect of quality of life for adults is the quality of work life. A full-time eight-hour-a-day job not only occupies a third of the person's adult life, but also offers a purpose to life including security, social networks, creative outlets, and avenues for learning new skills. With such a large investment of time and energy spent on work, it is the hope that each adult can have a job that they like and that pays for their daily needs. In the exchange of expending energy and receiving resources, one hopes to have a high quality of work life.

Statement of the Problem

Quality of life has become an increasingly important issue for people with disabilities. According to Schalock and Kiernan (1990), there is a concern for the growing numbers of people with disabilities being placed in community-based home and work environments as well as for the maintenance of quality of life and satisfaction for individuals with disabilities in a rapidly changing world. Although quality of life has been a concern for people with disabilities in general, the impact for individuals with mental retardation has been significant. For these individuals there has been a paradigm shift from sheltered programs to community supported programs, from services in an institutional setting to services in a natural environment, from professional driven to consumer driven services, from institutions to real homes, and from sheltered workshops to real jobs (Schalock, 1991). With the paradigm shift from sheltered environments to natural environments, there is a need to define quality of life for people with mental retardation.

The need to define the quality of life for individuals with mental retardation became evident in the 1980s in the United States. In a recommendation to the American Association on Mental Deficiency, Landesman (1986) established that there is a need to define the meaning of quality of life, determine strategies to monitor quality of life, and state environmental variables to enhance quality of life for individuals with mental retardation. Rowitz (1989) added the need for a definition and a determination of factors and ethical issues associated with quality of life. According to Tse (1991), further research is needed to determine subjective and objective standards of quality of life and to

develop concrete guidelines to improve the quality of lives of people with mental retardation.

In addition to identifying an operational definition of quality of life, there is a need to define quality of work life and to develop an instrument to measure quality of work life for adults with mental retardation. Many instruments are difficult to administer to individuals with mental retardation due to difficulties in receiving information asked in the form of a question as well as expressing answers to such questions. There is a need to define quality of work life and develop a measurement tool that can be used for adults with mental retardation.

Purpose of the Study

The purpose of this study was (a) to develop a survey to measure the quality of work life of adults with mental retardation, (b) to determine if there is a significant difference in responses between using a pictorial and a non-pictorial versions of the survey, and (c) to investigate the quality of work life of adults with mental retardation enrolled in a work adjustment program at an agency in Santa Clara County.

Major Research Questions

The following research questions guided this study:

1. How many workers who have at least five valid responses will receive a quality of work life score of at least a five in looking at the items dealing with being a happy worker, being a good worker, being a fast worker, making at least $60, spending money on food/movie/music, and placing paychecks in the bank/converting paychecks into money?

2. Will 80% or more responses match actual worker wages within $10?

Hypotheses

The following null hypotheses were investigated in this study:

1. There is no significant difference in the number of "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

2. There is no significant difference in inter-item validity with the items pertaining to being a happy and sad worker.

3. There is no significant difference in inter-item validity with the items pertaining to being a good and bad worker.

4. There is no significant difference in inter-item validity with items pertaining to being a fast and slow worker.

Limitations, Delimitations, and Assumptions

While creating a pictorial survey was a delimitation for adults with mental retardation who find it difficult to read a questionnaire or communicate their answers, it was still a limitation because it is difficult to ascertain if they understand the meaning of the pictures in the questions. In addition, it was an assumption that the questions in the survey measure all aspects of quality of work life.

Definition of Terms

The following definitions explain the terms used in this study:

Mental Retardation

The 1992 American Association on Mental Retardation's definition of mental retardation is as follows:

> Mental retardation refers to substantial limitations in present functioning. It is characterized by significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following applicable skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work. Mental retardation manifests before age 18. (Beirne-Smith, Patton, and Ittenbach, 1994, p. 75)

Work Adjustment

Wainwright and Couch (1978) defined work adjustment as "a highly sophisticated process utilizing the psycho-social components of work to modify behavior, shape work attitudes and generally prepare handicapped people for the labor market" (p. 39). Pruitt (1983) added that work adjustment can include work experience, comprehensive and systematic programming to change and improve work performance and work-related behaviors, and/or personal, social, and community adjustment.

Employment Classifications for Adults with Mental Retardation

Sheltered employment. Sheltered employment is an employment classification for people with mental retardation in which they receive rehabilitation services including screening, evaluation, training, placement, and follow-up services in an increased supervisory sheltered workshop setting (Beirne-Smith et al., 1994). Sheltered employment is a non-integrated setting where the worker produces valued goods with continual supports and is paid subminimum wage.

Supported employment. According to Beirne-Smith et al. (1994), supported employment is an employment classification that provides adults with mental retardation decreased supervision and segregation and increased autonomy and integration through the structured support of a job coach in paid competitive employment settings. Supported employment is a community integrated setting where the worker produces valued goods with continual but eventually faded supports and is paid minimum wage or above.

Competitive employment. Beirne-Smith et al. (1994) described competitive employment as an employment classification on the open market for adults with mental retardation working alongside individuals without mental retardation. Competitive employment is a community integrated setting where the worker produces valued goods without supports and is paid minimum wage or above.

Quality of Life

In 1995, Felce and Perry combined a variety of conceptual models to operationally define quality of life into one overall model:

> Quality of life is defined as an overall general wellbeing [sic] that comprises objective descriptors and subjective evaluations of physical, material, social, and emotional wellbeing [sic] together with the extent of personal development and purposeful activity, all weighted by a personal set of values. The three elements are shown in dynamic interaction with each other.... As well as affecting each other, the three elements are capable of changing independently as a result of external influences. Such external influences might include genetic, social, material inheritance, age and maturation, developmental history, employment, peer influences and reference points, and other social, economic, and political variables. (pp. 61-63)

Felce and Perry (1995) further defined the four types of well-being for people with mental retardation: physical, material, social, and emotional. Physical well-being includes health, fitness, and physical safety, and material well-being consists of finance or income, quality of living environment, privacy, possessions, meals or food, transportation, neighborhood, security, and stability and tenure. Examples of social well-being are interpersonal relationships, family and household life, friend, social life, relatives, community involvement, activities, events, and acceptance, and support. Emotional well-being includes affect, mood, satisfaction, fulfillment, self-esteem, status, respect, and religious beliefs.

Quality of Work Life

According to Kiernan and Knutson (1990) the following is the definition of quality of work life (QWL):

> ...QWL is an individual's interpretation of his/her role in the workplace and the interaction of that role with the expectations of others. The quality of one's work life is individually determined, designed, and evaluated. A quality work life means something is different to each and every individual, and is likely to vary according to the individual's age, career stage, and/or position in the industry. (p. 102)

Key concepts in the quality of work life include high levels of productivity and job satisfaction, workers' participation in management decision-making, and management's flexibility in meeting individual needs. Quality of work life variables consist of safe and healthy working conditions, immediate opportunities to use and develop human capacities, opportunities for continued growth and security, social integration in the work organization, equality and free speech in the workplace, a balanced role of work, and social responsibilities in the workplace.

Summary

Quality of work life is a factor to consider as adults with mental retardation search for and retain employment. For adults with mental retardation enrolled in a work adjustment program at an agency in Santa Clara County, quality of work life was investigated with the development of the Quality of Work Life Survey. This chapter introduced a study that would determine differences in using a pictorial and a non-pictorial format of the Quality of Life Survey for adults with mental retardation.

CHAPTER 2

REVIEW OF THE LITERATURE

While a review of the literature indicated that there is a substantial amount of research on all aspects quality of life, this chapter focuses on quality of work life. In particular, this chapter reviews the literature that looks at the legal foundations of quality of life, investigates the structural components of quality of life, describes measures of quality of life for adults with mental retardation, and demonstrates the vocational applications of quality of life in sheltered, supported, and competitive employment environments.

Legal Foundations

Legal foundations of quality of life are found on the federal and state levels. Schalock (1991) pointed out that there are five federal laws that have increased quality of life for people with disabilities: Section 504 of the Rehabilitation Act, Developmentally Disabled Assistance and Bill of Rights Act, Fair Labor Standards Act, the Individuals with Disabilities Education Act, and Americans with Disabilities Act. To increase quality of life, Section 504 of the Rehabilitation Act prohibits housing discrimination in federally funded programs by allowing access to educational programs. The Developmentally Disabled Assistance and Bill of Rights Act provides skill development programs to increase one's quality of life. The Fair Labor Standards Act improves quality of life through increased wages and employment opportunities. In the Individuals with Disabilities Education Act skill development, educational programs, and interactional opportunities with age appropriate peers in normalized environments assist in improving

quality of life for people with mental retardation. Lastly, the Americans with Disabilities Act calls for barrier-free environments and non-discrimination in employment to help increase the quality of life for adults with mental retardation. In addition, Parent (1993) adds that quality of life is improved for individuals with disabilities because the Americans with Disabilities Act increases opportunities to make choices and shape lives. On the state level Heinlein (1994) described Wyoming's Consent Decree where rules and regulations ensure quality of supports and services in the community. These legal foundations help guarantee quality of life for individuals with disabilities in general and for people with mental retardation in particular. In addition, these legal foundations provide a framework to define quality of life for adults with mental retardation.

Structural Components of Quality of Life

Research indicates there are the following structural components of quality of life for adults with mental retardation: life experiences, critical factors, indicators, and principles.

Aspects of life experiences. Personal characteristics, objective life conditions, and perceptions of significant others are three aspects of a person's life experiences that impact perceptions of quality of life (Schalock, 1991). There are four types of personal characteristics: cognitive, physical, social, and emotional. Cognitive characteristics include memory, visual and spatial reasoning, and hypothesis testing. Physical characteristics consist of health status, well-being, symptoms and burdens, and mobility, and social characteristics include feelings of support as well as family and friendship networks. Emotional characteristics are exemplified by affect, mood, and a sense of well-

being. Examples of objective life conditions are marriage, family life, neighborhood, employment, housing, standard of living, amount of education, savings, and memberships in organizations. Perceptions of significant others consist of acceptance, encouragement, and opportunities provided by family, friends, and professionals. Aspects of life experiences affect perceptions of quality of life; in other words interpretations of the significance of life experiences impacts how the world is viewed.

Critical factors. According to Felce and Perry (1995) and Schalock (1993), there are three critical factors in a person's perceived quality of life: objective, subjective, and interactional. Like objective life conditions (Schalock, 1991), objective critical factors are life conditions experienced by the person that can be objectively measured; these factors include physical health, income, occupation, living conditions, social relationships, functional activities, growth and mastery skills, and societal and economic circumstances. Subjective critical factors are life conditions that affect personal satisfaction, and these consist of life satisfaction itself, self-perception of skills and needs, and psychological well-being. Interactional critical factors are the combination of life conditions and satisfaction, and these are social supports, behavioral responses to ecological domains, and the fit between personal characteristics and the demands of the environment. Thus, critical factors are one conceptual model of quality of life.

Quality of life indicators. In 1991 and 1993 Schalock empirically derived four quality of life indicators that improve desired outcomes for adults with mental retardation; these outcomes are (a) independence and decision-making skills, (b) productivity, (c) community integration, and (d) satisfaction. Independence and decision-making skills

consist of control over the environment, the ability to make choices, the possession of functional behaviors and competencies, and the use of prosthetics to facilitate mobility and communication. Examples of independence and decision-making skills are home ownership, activities of daily living, accessibility and mobility, use of adaptive devices, choices, decision opportunities, possession, skill development, and personal growth and mastery.

Productivity is reflected as income-producing work or an activity that contributes to the home or community in order to promote a stable environment to decrease stress and increase positive life outcomes. It is exemplified in employment with a salary and benefits, work status, avocational activities, and volunteer work.

A definition of community integration is the participation in the same community activities, resources, and relationships as a non-disabled person. Examples of community integration are the use of natural supports, family-professional partnerships, work and school relationships, friendships, and social and community involvement. In 1986 Matson and Rusch described an increased quality of life through community integration and acceptance with the following example: If a person with disabilities is successfully working in a nonsegregated community setting, then he or she is more likely to be seen as a productive member of society and accepted by his or her peers.

Satisfaction is fulfilling a need or want which is then followed by happiness or contentment. Examples of satisfaction were safety and security, health and nutrition status, family and friend relationships, perception of natural supports, non-aversive interventions, normalized daily routine, feeling of belonging, responsibility, self-esteem,

satisfaction with services, and satisfaction with the fit between environmental demands and abilities (Schalock, 1991,1993). Quality of life indicators determines the signs that there is improvement in the lives of individuals with mental retardation.

Principles of quality of life. In 1989, Goode described four principles of quality of life. The first principle is that quality of life has the same features for both individuals with and without disabilities. The second principle is that an individual's quality of life can be influenced by aspects of the quality of life of significant others. The third principle is that quality of life is the result of the fulfillment of basic needs and responsibilities in community settings. The fourth principle is that quality of life is defined by an adult with mental retardation through his perceptions and evaluations of his own situation and not by a professional. Thus, principle of quality of life look at the subjective aspects of a person's satisfaction with life.

Measures of Quality of Life

Defining the structural components of quality of life, though complex, is important because it objectifies an abstract concept. To assist with this endeavor, researchers and practitioners have developed surveys and other objective tests to measure quality of life. These measures include the Quality of Life Index, the Quality of Life Survey, the Comprehensive Quality of Life Scale, and the Multifaceted Lifestyle Satisfaction Scale.

Quality of Life Index

In 1989, Schalock, Keith, Hoffman, and Karan developed the Quality of Life Index, which consists of 28 questions answered on a 1- to 3-point Likert-type scale with scores ranging from 28 (a low quality of life) to 84 (a high quality of life). There are three

factors measured by the Quality of Life Index: environmental control, community involvement, and social relations. There are 15 test items in the area of environmental control which ask about roommates, bed times, meal plans, grocery shopping, room decoration, personal physician, medication administration, doctor appointments, transportation, conservatorship, house keys, room access, activity choices, fiscal management, and social visitations. Community involvement items include the following six topics: job satisfaction, supervisory perceptions, public transportation, money management, home visits, and recreational activities. The seven social relations items consist of neighbor perceptions, community perceptions, neighbor relations, meal arrangements, pet ownership, roommate concerns, and educational programs. While the Quality of Life Index was used primarily with people who are diagnosed as having mild to moderate levels of mental retardation, it was found that there was a lack of variability of responses for individuals who are diagnosed as having severe to profound levels of mental retardation.

Quality of Life Survey

Sinnott-Oswald, Gliner, and Spencer (1991) revised the Quality of Life Index by developing an 18-item Quality of Life Survey that measured three categories: environmental control, community involvement, and perception of personal change. There are six environmental control items covering living arrangements, leisure/recreation activity involvement, restaurant choices, shopping companions, decision-making skills, and self-esteem. The seven community involvement items consist of public transportation, frequency of public transportation usage, leisure/recreation activities, restaurants,

restaurant companions, use of leisure time, and activity involvement. The five items regarding perception of personal change consist of health, living skill changes, mobility changes, job skill changes, and income changes. While the Quality of Life Survey has fewer items than the Quality of Life Index, the measures are similar in design.

Sinnott-Oswald, Gliner, and Spencer (1991) administered the Quality of Life Survey to 10 adults with mental retardation who were in supported employment, 10 adults with mental retardation who were in sheltered workshops, and 10 non-disabled adults. Scoring was done on a per-question basis with seven questions using a 5-point rating scale, two questions using a frequency of participation score, and nine questions using a binary scoring system. In the area of environmental control, the supported employment group scored significantly higher than the sheltered workshop group in independent decision-making skills and self-esteem. For items in community involvement, the supported employment and sheltered workshop groups used public transportation significantly more than the non-disabled group. Whereas the supported employment group scored significantly higher than the sheltered workshop and non-disabled groups on the number of leisure activities, the non-disabled group scored significantly higher than the groups with disabilities on going out to eat. In the area of perception of personal change the supported employment group scored significantly higher than the sheltered workshop group in mobility, job skills, and income. While this study compared a number of variables in three different groups, the sample size of each group was small for the study to be significant.

Comprehensive Quality of Life Scale

In an attempt to correct some of the design weaknesses of the Quality of Life Index and the Quality of Life Survey, the Comprehensive Quality of Life Scale was created. Developed by Cummins (1991), the Comprehensive Quality of Life Scale measures objective and subjective quality of life indicators in seven domains: material things, physical well-being, productivity, intimacy, safety, place in society, and emotional well-being. Material things consist of material well-being, living conditions, disposable income, and socio-economic status. Physical well-being measures physical health, and productivity looks at productivity, work, and personal growth and development. Whereas intimacy measures having friends and family, safety considers security, privacy, and control. Place in society looks at the following characteristics: social class, education, job status, community integration, and community involvement. The last domain, emotional well-being, measures general happiness, leisure activity, and energy. The scoring occurs in three stages: arranging wooden cubes of varying sizes into an ordered progression of sizes, transposing wooden cube sizes from largest to smallest, and pointing to the cube size with the most important test item being the largest cube and the least important test item being the smallest cube. Three types of data are collected by the scale: domain ordering or weighting in terms of perceived importance, domain fulfillment according to objective items, and domain fulfillment according to subjective items. As the Comprehensive Quality of Life Scale is still in formation, there were no tests of reliability performed.

Multifaceted Lifestyle Satisfaction Scale (MLSS)

The Mulitfaceted Lifestyle Satisfaction Scale is another measure of quality of life for people with mental retardation. Harner and Heal (1993) developed the Multifaceted Lifestyle Satisfaction Scale for individuals with mental retardation to measure the level of happiness and satisfaction in the following domains: community satisfaction, satisfaction with services, satisfaction with friends and free time, satisfaction with recreation and leisure activities, job satisfaction, and satisfaction with interpersonal interactions. According to Harner and Heal (1993) the Multifaceted Lifestyle Satisfaction Scale is unique in that the questions can be answered by individuals with limited verbal skills by offering "an interview format, concrete questions in addition to leader questions designed to enhance respondent rapport and comprehension, and a yes-no format" (p. 224). There are 47 scale items, and the scale responses are scored as +1.0 for yes, -1.0 for no, 0.0 for ambivalent answers, +2.0 for an enthusiastic yes, and -2.0 for an enthusiastic no.

Utilizing the Multifaceted Lifestyle Satisfaction Scale, Harner and Heal (1993) surveyed 149 adults who were diagnosed as having mental retardation who lived in out-of-home community residential placements. There were four conclusions drawn from this study. First, adults living in less restrictive community environments were significantly more satisfied with their lives than adults living in more restrictive community environments. Second, adults diagnosed with milder ranges of mental retardation were significantly more satisfied in recreation and leisure activity satisfaction. Third, the younger the individual the lower the scale score and the less satisfied with their lives. Fourth, there is no relationship between intellectual functioning and overall lifestyle

satisfaction scale score. According to Harner and Heal (1993), "The results of this study indicate that the MLSS is a reliable and valid instrument to measure the satisfaction of individuals with mental retardation with their communities, friends and free time, employment, and recreation and leisure activities" (p.235).

The Quality of Life Index, the Quality of Life Survey, the Comprehensive Quality of Life Scale, and the Multifaceted Lifestyle Satisfaction Survey are four measures to objectify the abstract concept of quality of life. While they have apparent weaknesses in their design, all four measures are varied so that the researcher can match the measurement tool to the cognitive level of the individual with mental retardation.

Vocational Applications of Quality of Life

Employment-Related Outcome Measures

In reviewing quality of life literature, one vocational application is employment-related outcome measures. When determining the employment outcomes in quality of life terms, there needs to be an assessment of quality of work and community life associated with employment (Schalock, 1986). Whereas employment-related outcome measures of quality of work life include part-time or full-time employment status, wages, hours worked, benefits, and worker integration, employment-related outcome measures of quality of community life consist of family involvement, primary sources of income, transportation, education, family role status, living arrangements, mobility, activity level, independence, community involvement, social and recreational involvement, friendship patterns, and restrictiveness of living environment (Brown, Diller, Gordon, Fordyce, & Jacobs, 1984; Schalock, 1986). Schalock (1986) added as quality of life was a primary issue in the 1980s, it is imperative for high school graduates to improve their quality of life through successful employment outcomes.

Quality of Life Differences in Competitive Versus Sheltered Employment

To determine the significance of employment outcomes, Inge, Banks, Wehman, Hill, and Shafer (1988) studied differences in the quality of life for workers in competitive employment and workers in sheltered employment. They matched 20 adults with mental retardation who had been placed in competitive employment for two years with 20 adults with mental retardation who had been employed in sheltered workshops, using a non-

random multiple time series design with repeated pre-test and post-test measures. Study participants were matched according to their sex, sensory involvement, physical involvement, and functioning level; however, they were closely matched on age within five years and within one point on inappropriate behavior, work skills, and parental support. The study used three test instruments: AAMR Adaptive Behavior Scale, Parent/Guardian Survey, and five measures of physical health. AAMR Adaptive Behavior Scale was administered to the participants every six months by professionals. Parent/Guardian Survey measured domestic skills, appearance, community participation, leisure and recreation, social and vocational, vocational interaction, fiscal responsibility, nonessential purchasing, and financial activity of the participants, and parents were interviewed with this survey every three months. The five measures of physical health consisted of weight, resting pulse rate, blood pressure, hand strength measured by a dynamometer, and body fat content measured by a fat calibrator, and a registered occupational therapist collected information on these measures from the participants every three months.

Inge et al. (1988) made 10 significant conclusions from their study. First, while there was a slight decline in economic activity for workers in sheltered employment, there was a significant increase in economic activity for workers in competitive employment. While there was no change in language development for workers in sheltered employment, there was a significant improvement for workers in competitive employment. Third, whereas there was no significant change in number and time usage by workers in sheltered employment, there was substantial improvement by workers in competitive employment. One of the more significant findings was in the area of community participation, where

workers in sheltered employment had lower scores, and workers in competitive employment had higher scores. Fifth, even though the scores of workers in sheltered employment declined, the scores of workers in competitive employment increased in the area of social and vocational skills. In the area of fiscal responsibility the scores of the workers in sheltered employment gradually declined, and there was a dramatic improvement in scores of workers in competitive employment. Seventh, where workers in sheltered employment experienced virtually no change in financial activity, workers in competitive employment increased their financial activity dramatically. The most significant finding in the study was in the area of weekly gross income with workers' income in sheltered employment remaining approximately the same, and workers' income in competitive employment rising dramatically. While there was a weight increase in workers in sheltered employment, there was a significant weight loss in workers in competitive employment. Lastly in terms of hand strength, workers in sheltered employment had an insignificant decrease, and workers in competitive employment had a significant increase. While this study used a small number of participants, quality of life appeared to have improved for workers in competitive employment in the areas of economic activity, language development, numbers and time usage, community participation, social vocational skills, fiscal responsibility, financial outcomes, weight control, and hand strength.

Indices of Job Satisfaction

Another vocational application of quality of life is to measure indices of job satisfaction. In 1989, Nisbet and York performed this application by interviewing six 20

and 21 year old persons with moderate and severe levels of mental retardation or autism and their families, employers, and teachers. Participants in the study were asked about job tasks, likes and dislikes on the job, and work friendships. Whereas parents and teachers were asked about participant's communications about the job, their perceptions of the participant's feelings about the job, effects and changes of the job on the participant, the participant's responses to going to work, and the participant's areas of growth, the employers were asked about the participant's length of employment, types of supervision provided to the participant, their perceptions of the participant's feelings about the job, areas of growth, and observed relationships with people at work. In addition, Nisbet and York observed the following characteristics of the six individuals in their employment environment: attendance and punctuality, facial expressions, acceptance of instructions, attention to task, refusal to work, and interaction with supervisor and coworkers during work hours.

From the interviews and observations, Nisbet and York (1989) found the following indices of job satisfaction of individuals with moderate and severe levels of mental retardation: maintained regular attendance and punctuality, demonstrated positive facial expressions, accepted supervision, attended to task consistently, interacted positively with coworkers and supervisors, expressed satisfaction with job, took responsibility for work-related items, maintained acceptable quality standards of work, possessed acceptable and adult-like behavior at work, communicated with increasing frequency, communicated positive aspects of job with people at and outside work, demonstrated enthusiasm about going to work, dressed promptly and appropriately for work, transferred skills learned at

work to home environment, maintained grooming and hygiene, responded positively to paychecks, and communicated disappointment when work is cancelled. Since there were a low number of participants in the study, a list of indices of job satisfaction was formulated rather than a quantitative analysis of responses. This list of indices is similar to Schalock's 1986 employment-related outcome measures.

Comparison of Quality of Life by Level of Mental Retardation

Comparing levels of mental retardation is another way of looking at the vocational applications of quality of life. In 1990, Frank, Sitlington, Cooper, and Cool utilized this approach with a stratified random sampling procedure, interviewing 318 former special education students from Iowa diagnosed with mental retardation one year after graduation. The interview instrument gathered the following types of information about the graduates: test scores from high school, level of disability, instructional program model, regular and special vocational courses, extracurricular activities, evaluations of school experiences, marital status, living arrangements, leisure activities, high school job experiences, current job location, salary, and hours of work. Frank et al. divided the graduates into four levels. Level 1 consisted of graduates of resource teacher programs where they were placed a minimal average of 30 minutes per day. Level 2 graduates participated in at least one general education academic class and were integrated the majority of the school day. Graduates of Level 3 programs were in special classes with little integration. Level 4 consisted of graduates who were in self-contained special classes for the entire day.

In looking at the study's results of a successful graduate, there were two sets of criteria used by Frank et al. (1990). In the first set of criteria, there were six graduates from Level 1 and 2 programs who made successful adjustment to adult life by (a) being employed either full- or part-time, (b) buying a home or living independently or with a friend, (c) paying more than half of their living expenses, and (d) being involved with more than three leisure activities. There were five graduates from Level 3 and 4 program who made successful adjustment to adult life by (a) being employed, (b) buying a home or living independently or with a friend or residing in a supervised apartment or group home, (c) paying at least a portion of their living expenses, and (d) being involved in at least three leisure activities. In total these 11 individuals in the first set of criteria made up less than 4% of the 318 participants of the study. In the second set of criteria, there were 11 graduates from Level 1 and 2 programs who made successful adjustment to adult life by being homemakers or involved in school or job training programs, buying a home or living independently or with a friend or relative, paying at least a portion of their living expenses, and being involved in more than one leisure activity. There were four graduates from Level 3 and 4 programs who made successful adjustment to adult life by being homemakers or involved in school or job training programs, buying a home or living independently or with a friend or relative or living in a supervised apartment or group home, paying little or none of their living expenses, and being involved in more than one leisure activity. In looking at the second set of criteria, less than 5% or 15 individuals in total were successful graduates. Thus, combining the two sets of criteria somewhat more

than 8% of the 318 individuals were successful graduates, which is a minority in the study. In interpreting these results it appears that Iowa did not prepare their high school graduates with mental retardation to be successful according to the study's criteria.

Life Centered Career Education Competencies

Studying Life Centered Career Education competencies of adults with mental retardation is one vocational application of quality of life. In 1990, Roessler, Brolin, and Johnson had teachers rate the competence of 59 students from school cooperatives in Arkansas, small communities in Minnesota, and metropolitan areas of California using the 22 Life Centered Career Education competencies in a one-year follow-up study to determine quality of life. Out of the 59 students who were mostly high school graduates, 40 % were diagnosed as having mild mental retardation and 60 % were diagnosed as having learning disabilities. Reviewing the employment status of the students with mild mental retardation, 53% had paid employment, 13 % were homemakers, 13% attended sheltered workshops, and 20% were unemployed. With the 53% of the students in paid employment, 20% were in full-time competitive employment, 60% in part-time competitive employment, and 20% in sheltered employment. Looking at the time status of the paid jobs for students with mild mental retardation, 20% were working 38 hours or more per week, 50% were working 21 to 37 hours per week, 10% were working 10 to 20 hours per week, and 20% were working less than 10 hours per week. The students with mild mental retardation found their jobs in the following ways: 44% through themselves, 22% through parents or relatives, 22% through school personnel, and 11% through

vocational rehabilitation programs. It was found that 20% of the students with mild mental retardation lived independently, and 80% lived with parents or relatives.

Roessler et al. (1990) made seven significant findings with an alpha level of .01. First, it was found to be statistically significant that African American students worked far fewer days during the year than did Caucasian students. Second, the characteristics that were correlated positively to the percentage of time employed are as follows: (a) teacher daily living rating, (b) teacher occupational guidance and preparation rating, and (c) teacher total competency rating. In addition, the following characteristics were correlated positively to student life satisfaction ratings: (a) student personal and social ratings, (b) student total competency ratings, and (c) parent and student ratings of life satisfaction. Thus, it was concluded that while students who rated themselves higher on Life Centered Career Education competencies reported higher levels of life satisfaction, subjective quality of life was not related to the employment variables of percent of time working and employer evaluations.

Longitudinal Study of Quality of Life

Longitudinal studies can be used to see the changes that can occur in quality of life. In 1990, Affleck, Edgar, Levine, and Kortering studied quality of life at 6, 18 and 30 month time spans. They interviewed by telephone 2,655 graduates from the state of Washington who were nonhandicapped or diagnosed as having mild mental retardation or learning disabilities on the following measures: employment, postsecondary education, independent living, salary, and access to adult services.

Overall for adults with mild mental retardation, 57% six months after graduation and 50% thirty months after graduation were engaged in employment and/or postsecondary schooling (Affleck et al., 1990). In terms of living independently, 8% of the adults with mild mental retardation 6 months after graduation and 21% of the adults with mild mental retardation 30 months after graduation lived independently. With the federal minimum salary for a 40-hour work week being $134, 11% of the adults with mild mental retardation 6 months after graduation and 6% of the adults with mild mental retardation 30 months after graduation were making the federal minimum salary. Whereas 21% of the adults with mild mental retardation used the services provided by the Division of Vocational Rehabilitation, 6% of the adults with mild mental retardation used the services provided by the Division of Developmental Disabilities. In general, opportunities for employment, postsecondary education, independent living, and salary are the greatest for the nonhandicapped, followed by adults with learning disabilities, followed by adults with mild mental retardation. Improvements are needed for adults with mild mental retardation at the secondary school level to have a comparable lifestyle to their peers.

Comparison of Employment and Unemployment and Quality of Life

Just as it is interesting to compare quality of life by employment classification, it is also interesting to compare quality of life between the employed and unemployed. Jiranek and Kirby (1990) compared job satisfaction and psychological well-being of adults with and without intellectual disabilities in sheltered employment, competitive employment, and unemployment. The participants in the study were between the ages of 20 and 25 with 29 participants who were without disabilities and 44 participants who were diagnosed as

having a borderline or mild intellectual disability. Out of the 44 participants with intellectual disabilities, 15 were in sheltered employment, 15 were in competitive employment, and 14 were in unemployment status. Whereas the participants with disabilities were interviewed in person, the participants without disabilities were mailed their questionnaires. The questionnaires for both groups asked questions in the areas of social and leisure activities, negative moods, self-esteem, locus of control, depressive affect, job satisfaction, and personal and employment details.

There were four major findings in the Jiranek and Kirby (1990) study. In terms of psychological well-being, competitive employment was preferred over unemployment for both adults with and without intellectual disabilities. Regardless of employment status, adults with intellectual disabilities had a lower psychological well-being the adults without disabilities. In terms of job satisfaction, competitive employment was preferred over sheltered employment for adults with intellectual disabilities. Lastly, self-esteem was higher for adults with intellectual disabilities in both sheltered and competitive employment rather than unemployment. Jiranek and Kirby noted that the size of the samples in the study were small, and the participants from the sheltered workshop in the study may not be representative of sheltered workshops in general.

Comparison of Type of Residential Setting and Quality of Life

A vocational application of quality life is to compare the differences of opinions of residents living in different types of settings. Burchard, Hasazi, Gordon, and Yoe (1991) studied comparisons of community employment and work satisfaction of 133 adults with mild and moderate mental retardation living in small group homes, supervised apartments,

and natural family homes in Vermont. One of the instruments used was a 6-item work satisfaction scale with a five point rating scale from happy to sad faces.

Burchard et al. (1991) made four conclusions in the area of community employment and work satisfaction. When comparing residents in group homes and supervised apartments with a history of institutionalization, there is no difference in participation in community employment. Significant correlations were found between age and employment status; thus, older adults with mental retardation were not as likely to be working in community settings. Third, there were no significant differences between the relationship of the type of residential setting and the amount of time employed in the community; among all residents regardless of setting, 25% were employed part time, and 20% were employed full time. Lastly, there was no difference in the relationship of the type of residential setting and satisfaction with work, as residents of all three types of settings participated in similar work environments. With the small proportion of the study participating in work in the community, there was limited amount of social integration; future studies need to investigate the reasons for this lack of social integration.

Supported Employment's Cost Effectiveness on Quality of Life

Looking at cost effectiveness by employment classification is another aspect of vocational applications of quality of life. In 1993, McCaughrin, Ellis, Rusch, and Heal performed an exploratory study to determine the cost-effectiveness of the non-monetary benefits, namely quality of life, of supported employment. Using a matched-pairs design McCaughrin et al. studied five pairs from each of two central Illinois agencies, which totaled 20 participants with mild to severe levels of mental retardation. The pairs were

matched by age, IQ, disability, residence, and Individual Client and Agency Planning score. Four behavioral assessment instruments were used to measure cost effectiveness: the Employment Integration Index, the Co-Worker Involvement Index, the Worker Loneliness Index, and the Quality of Life Index. The Employment Integration Index assesses integration opportunities at supported employment sites. The Co-Worker Involvement Index measures the interaction between supported employment employees and their co-workers. The Worker Loneliness Questionnaire evaluates whether workers with mental retardation experience loneliness. Lastly, the Quality of Life Questionnaire assesses quality of life for individuals with disabilities.

McCaughrin et al. (1993) made two major conclusions about the cost-effectiveness of supported employment. First, it was found that supported employment was more cost-effective on all four quality of life indexes than sheltered employment. When comparing costs of supported employment with sheltered employment, the savings from supported employment ranged from $14 to $487 per point. Second, for an adult with mild mental retardation, supported employment was more cost effective on the Employment Integration, Co-Worker Involvement, and Quality of Life Indexes, but it was less cost effective on the Worker Loneliness Index because supported employees tend to experience greater loneliness. Thus, for a person with mild mental retardation the savings from supported employment ranged from $4 to $356 per point. It appears that supported employment is more cost effective than sheltered employment.

Job Satisfaction of Adults with Mental Retardation in Supported Employment

Studying job satisfaction of adult with mental retardation who are in supported employment is another vocational application of quality of life. In 1993, Test, Hinson, Solow, and Keul measured perceptions of adults with mental retardation on satisfaction with their supported employment jobs and services. Test et al. obtained 34 supported employment workers from Supported Employment Training, Inc. of North Carolina to conduct their study. The instrument consisted of interviews using the 20-item Job Satisfaction Questionnaire that measured the following factors: work history, job preference, job coach information, job information, on-the-job friendships, non-coworker friendships, and level of fit and independence.

Test et al. (1993) calculated statistics on six types of information. First looking at work history and preference, 85.3% of the workers worked before, and 76.5% preferred their current supported employment job because 39.2% felt better treatment, 21.4% felt it was a better job, 21.4% liked their co-workers, and 14.8% said it was better money. Second, in collecting job coach information workers said 85.3% of their job coaches helped them learn their job, 76.4% of their job coaches helped with self-advocacy issues apart from work, and 97.1% were satisfied with their job coaches. In terms of job information, when asked what was liked about the job, 52.9% liked the job itself, 26.4% liked the money earned, and 20.5% liked work friendships; when asked what was disliked about the job, 47.1% were dissatisfied with a particular job task, and 29.4% stated they liked everything about their job. In addition, 76.5% were happy with the money they earned, and 85.3% stated that they knew how much they earned with 73.5% stating they

spent their earnings on entertainment and necessities. Fourth, in looking at friendships at work, 97.1% stated they had friendships at work with 79.4% socializing with co-workers at work in terms of working together, taking breaks together, eating lunches together, and joking around. Fifth, 76.5% had friends who were not co-workers that included family members, neighbors, supported employment friends, and others. Lastly, in terms of level of fit and independence, 100% stated they got along with their co-workers, and 94.1% got along with their supervisor; with problems on the job, 94.1% went to their supervisor, and for problems outside of work, 58.8% went to their parents. In conclusion, workers in this study generally appear satisfied with their supported employment services and their job.

Effects of Employment Status and Perceptions of Control on Quality of Life

The final study reviewed vocational applications of quality of life that dealt with employment status and perceptions of control. Wehmeyer (1994) hypothesized that the type of employment status would affect a person's locus of control that, in turn, would affect one's quality of life. According to Lefcourt (1976), locus of control can be external or internal; whereas external locus of control are determined by other people controlling reinforcers and outcomes, internal locus of control are determined by individuals themselves controlling consequences. In addition, Lefcourt found while externality is associated with maladaptive outcomes, internality is related to high levels of self-esteem and self-concept, peer acceptance and popularity, leadership, and low levels of anxiety. Wehmeyer studied the general locus of control of 216 adults with cognitive and developmental disabilities from 23 states and 2 Canadian provinces using the 40-item adult

version of the Nowicki-Strickland Internal-External Scale, which measures problem-solving style, the role of luck and fate versus hard work and persistence, and the general perceptions of futility and helplessness versus control and choice.

Wehmeyer (1994) concluded two major findings from his study. First, the type of employment affects a person's locus of control. It was found that unemployed individuals with cognitive disabilities experienced the least control, individuals with cognitive disabilities in sheltered employment experienced more control than the unemployed, individuals with cognitive disabilities in competitive employment experienced more control than those in sheltered employment, and adults without disabilities experienced the most control. Second, there was no significant effect of locus of control on age or gender, but there was a moderately significant effect of the type of employment on gender. It was found that unemployed females tended to have more external locus of control than males; however, males in sheltered employment on a full-time basis tended to have more external locus of control than females. Thus, the type of employment and sex can affect their locus of control that, in turn, can affect one's quality of life.

In final review of the vocational applications of quality of life, it appears that many of the studies cannot be generalized to the population on a whole due to small sample sizes. While quality of life in general and quality of work life in particular are important issues for people with mental retardation, the results of the vocational studies appear difficult to generalize to all adults with all levels of mental retardation.

Summary

A review of the literature and current research found that while there are legal foundations for quality of life, it is a philosophical aspect of life with multiple structural components. Even though there are measurement tools for quality of life for adults with mental retardation, there does not appear to be a tool that measures only quality of work life, and there does not appear to be an instrument that provides items regarding quality of life in a pictorial format. In addition there does not appear to be any studies measuring quality of work life of adults with mental retardation in work adjustment programs. The next chapter will introduce the methodology utilized to conduct this study.

CHAPTER 3

METHODOLOGY

Quality of work life has become an increasingly important issue for adults with mental retardation as more people in this population are being placed in community-based work environments. In order to determine the quality of one's work life, it is helpful to measure aspects of work life. Many instruments are difficult to administer to individuals with mental retardation due to difficulties in comprehending information asked in the form of a question as well as expressing answers to such questions. With this idea in mind, the primary purpose of this study was to develop a pictorial survey to measure the quality of work life of adults with mental retardation. The secondary purpose of this study was to determine if there is a significant difference in responses between using a pictorial and a non-pictorial survey. The third purpose of this study was to investigate the quality of work life of adults with mental retardation enrolled in a work adjustment program at an agency in Santa Clara County.

Subjects

The subjects of the study were 38 adults with mental retardation who were enrolled in a work adjustment program at an agency in Santa Clara County. The subjects ranged from 21 to 60 years of age and were from all socioeconomic levels. There were 20 males and 18 females. The ethnic origins of the subjects consisted of 15 Caucasian adults; 13 Asian adults of Vietnamese, Filipino, or Chinese descent; 9 Hispanic adults of Mexican descent; and 1 African American adult.

All workers listed on the attendance roll sheets in the work adjustment program were asked to participate in the study by the investigator showing each worker the survey and a Research Participation Agreement form; if the worker wished to participate in the study, non-conserved workers signed agreement forms, and for conserved workers, both the worker and their conservators signed Agreement forms. The subjects who participated in the study were willing to participate in the study. Once the subjects were determined, they were assigned a number to ensure confidentiality. The subjects were then divided into an experimental group and an control group. The experimental group was selected by using a Table of Random Numbers. The experimental group was determined when the first 19 numbers between the range of 1 and 38 appeared in the Table of Random Numbers. The remainder of the subjects constituted the control group. The experimental group were administered the Pictorial Quality of Work Life Survey, and the control group were administered the Non-Pictorial Quality of Work Life Survey. The experimental group were administered the Pictorial Quality of Work Life Survey, and the control group were administered the Non-Pictorial Quality of Work Life Survey.

Procedure

The procedures of this study consisted of the instrumentation and data collection.

Instrumentation

Pictorial Quality of Work Life Survey. The Pictorial Quality of Work Life Survey was developed by the author. The purpose of the survey was to determine if the subjects could understand the significance of the pictures in order to answer the measures of

quality of work life. The Pictorial Quality of Work Life Survey was administered to the experimental group of subjects. The survey consisted of four sections as follows:

1. The practice test consisted of 19 pictures used throughout the survey. The subjects were to describe to the investigator the significance of each picture.

2. The worker's judgments consisted of six items measuring whether or not the subject is a happy, sad, good, bad, fast, or slow worker. Each of the six items has three choices, and the subject was to point to the choice for the investigator to circle.

3. The worker's background consisted of three items measuring the subject's knowledge of the amount of earnings, how money is spent, and what is done with the paycheck. Each of the three items has four choices, and the subject was to point to the choice for the investigator to circle.

4. The additional comments section was used if the subject had any additional comments, or if the investigator noted any observations during the administration of the survey.

Non-Pictorial Quality of Work Life Survey. The Non-Pictorial Quality of Work Life Survey was developed by the author. The purpose of the survey was to determine if the subjects could understand the survey without pictures to answer the measures of quality of work life. The Non-Pictorial Quality of Work Life Survey was administered to the control group of subjects. The survey consisted of three sections as follows:

1. The worker's judgments consisted of six items measuring whether or not the subject is a happy, sad, good, bad, fast, or slow worker. Each of the six items has three choices, and the subject was to state the choice for the investigator to circle.

2. The worker's background consisted of three items measuring the subject's knowledge of the amount of earnings, how money is spent, and what is done with the paycheck. Each of the three items has four choices, and the subject was to state the choice for the investigator to circle.

3. The additional comments section was used if the subject had any additional comments, or if the investigator noted any observations during the administration of the survey.

Data Collection

The following procedures were employed to collect the data for this study:

1. The author identified a work adjustment program at an agency in Santa Clara County, and the assistant vice president of the work adjustment program was approached to determine if there was interest in having program participants participate in the study. The agency agreed to participate in the study (see Appendix A).

2. A Human Subject Protocol was submitted to San Jose State University (see Appendix B).

3. The Pictorial Quality of Work Life Survey (see Appendix C) and the Non-Pictorial Quality of Work Life Survey (see Appendix D) were developed by the author and approved by the assistant vice president of the work adjustment program and a special education professor at San Jose State University.

4. Attendance roll sheets for the work adjustment program were obtained from the agency, and all workers enrolled in the program were contacted in person to determine if they were interested in participating in the study. If there was interest in participating in

the study, an Agreement to Participate in Research form (see Appendix E) was read to the subjects, and their signature was obtained. If the subjects were conserved, the conservator were contacted by phone to explain the nature of the study, and an Agreement to Participate in Research form for Conservators (see Appendix F) was mailed to the conservators to sign and return to the investigator. The investigator then obtained the conserved subject's signature prior to the subject's participation in the study. These forms notified the subjects and conservators of their rights and noted their agreement to participate in the study.

5. The Pictorial Quality of Work Life Survey was administered to the experimental group, and the Non-Pictorial Quality of Work Life Survey was administered to the control group. The author met individually with each subject at the participating agency in a meeting room in private to ensure confidentiality for each subject. The survey questions were read by the author to each subject, and each subject's responses were recorded by the author.

6. Upon the analysis of results and the development of conclusions of the study, meetings were arranged with the assistant vice president and program staff of the work adjustment program to share the results and conclusions of the study.

Data Analysis

Data analysis was performed for the research questions from the data collected from the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. The following steps were taken to analyze the data:

1. A numerical total was collected on the number of workers who had a high quality of work life. Workers who have a high quality of work life are defined in this study as having at least five valid responses and who received a score of at least a five when looking items dealing being a happy worker, being a good worker, being a fast worker, making at least $60, spending money on food/movie/music, and placing checks in the bank/converting paychecks into money.

2. A percentage was calculated for the number of responses from workers that matched actual worker wages within $10.

Statistical Analysis

The data collected from the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey were analyzed for statistical significance according to the hypotheses. The following steps were employed to analyze the hypotheses:

1. Demographic data was analyzed using the following descriptive statistics: percentages, means, standard deviations, and frequency distributions. Demographic data consisted of sex, age, and ethnic origin for all subjects, the experimental group, and the control group.

2. To determine that there is no statistical significance in the number of "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey, the chi square (χ^2) test of significance was used.

3. The chi square (χ^2) test of significance was used to determine that there was no significant difference in inter-item validity with the items pertaining to being a happy or sad worker.

4. In order to determine that there is no statistical significance in inter-item validity with the items pertaining to being a good or bad worker, the chi square (χ^2) test of significance was used.

5. The chi square (χ^2) test of significance was used to determine that there was no significant difference in inter-item validity with the items pertaining to being a fast or slow worker.

Summary

This chapter on methodology described the steps taken to measure overall quality of work life and inter-item validity of responses with items pertaining to happy and sad worker, good and bad worker, and fast and slow worker. Descriptions were presented of subjects, instruments, data collection and statistical analysis. The next chapter will present this study's results.

CHAPTER 4

RESULTS AND DISCUSSION

There were three purposes to conduct this study. The primary purpose of this study was to develop a pictorial survey to measure the quality of work life of adults with mental retardation. The secondary purpose of this study was to determine if there is a significant difference in responses between using a pictorial and a non-pictorial survey. The third purpose of this study was to investigate the quality of work life of adults with mental retardation enrolled in a work adjustment program at an agency in Santa Clara County.

The following two research questions guided this study:

1. How many workers who have at least five valid responses will receive a quality of work life score of at least a five in looking at the items dealing with being a happy worker, being a good worker, being a fast worker, making at least $60, spending money on food/movie/music, and placing paychecks in the bank/converting paychecks into money?

2. Will 80% or more responses match actual worker wages within $10?

The following four null hypotheses were investigated in this study:

1. There is no significant difference in the number of "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

2. There is no significant difference in inter-item validity with the items pertaining to being a happy and sad worker.

3. There is no significant difference in inter-item validity with the items pertaining to being a good and bad worker.

4. There is no significant difference in inter-item validity with items pertaining to being a fast and slow worker.

Descriptive statistics regarding the socio-demographic data of the subjects will be presented. A report of the data collection, data analysis, and statistical analysis will be presented to address the research questions and hypotheses.

Demographic Data

The author asked 35 workers if they would like to participate in the study and 3 conservators if they would approve their workers participating in the study. Out of the 35 workers 34 agreed to participate in the study, and all 3 conservators approved their workers to participate in the study. As a result there were 18 subjects in the experimental group who were administered the Pictorial Quality of Work Life Survey, and there were 19 subjects in the control group who were administered the Non-Pictorial Quality of Work Life Survey. Thus, there were 37 subjects in total.

Subjects consisted of 19 males and 18 females in total with 8 males and 10 females in the experimental group and 11 males and 8 females in the control group. The chart in Figure 1 displays the number and sex of subjects in total, in the experimental group, and the control group.

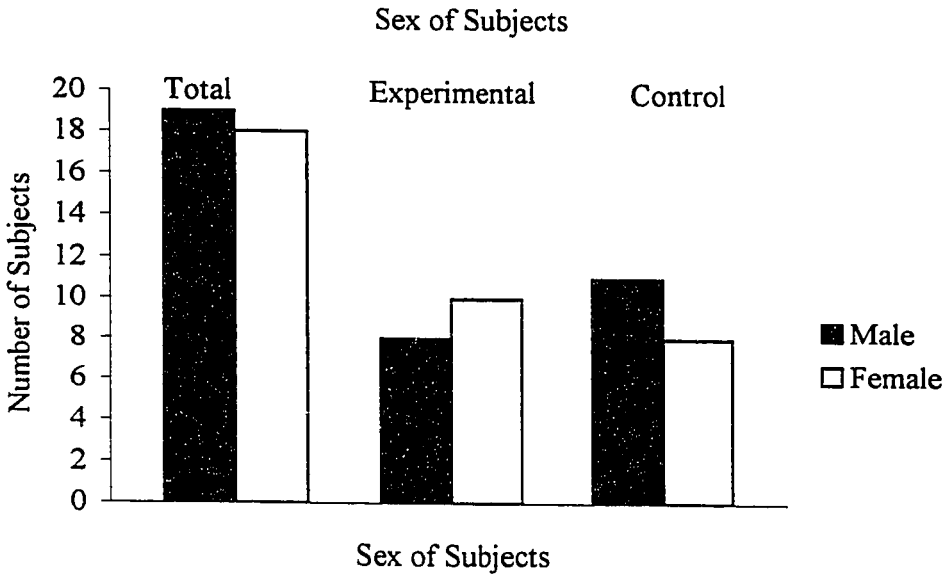

Figure 1: Sex of Subjects

Descriptive statistics were also calculated for the ages of subjects. For the total number of subjects, the average age (with the standard deviation in parentheses) was 33.4 years (SD = 8.1) with a range of 22 to 58 years. For the subjects in the experimental group, the average age was 32.2 (SD = 7.3) with a range of 22 to 47 years. For subjects in the control group, the average age was 35 (SD = 8.8) with a range of 22 to 58 years. The pie chart in Figure 2 displays the percentages of the age of total subjects by decade.

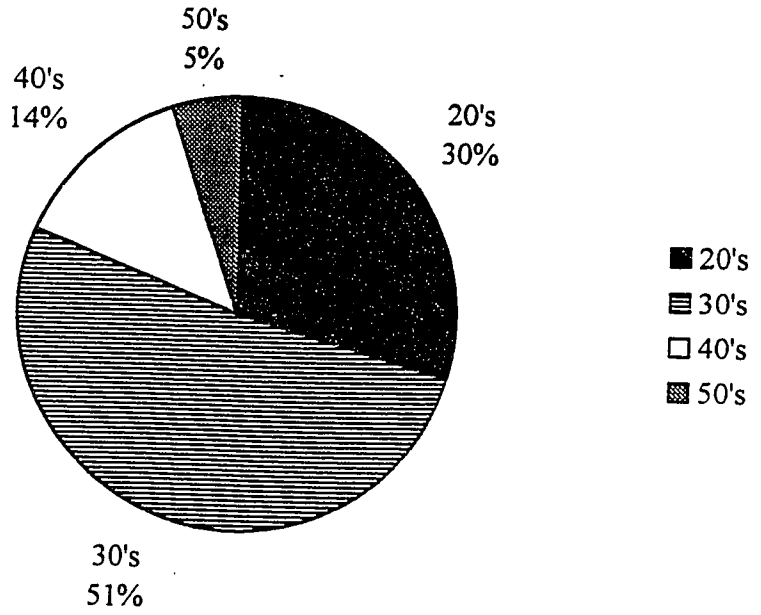

Figure 2: Age of Total Subjects by Decade

In reviewing the ethnic origins of the total 37 subjects, 15 were Caucasian Americans, 13 were Asian Americans, 8 were Hispanic Americans, and 1 was African American. The ethnic origins of the experimental group of subjects consisted of 9 Caucasian Americans, 4 Asian Americans, 4 Hispanic Americans, and 1 African American. For the subjects in the control group, there were 9 Asian Americans, 6 Caucasian Americans, and 4 Hispanic Americans. The chart in Figure 3 displays the number of each ethnic group in the total group of subjects, experimental group subjects, and control group of subjects.

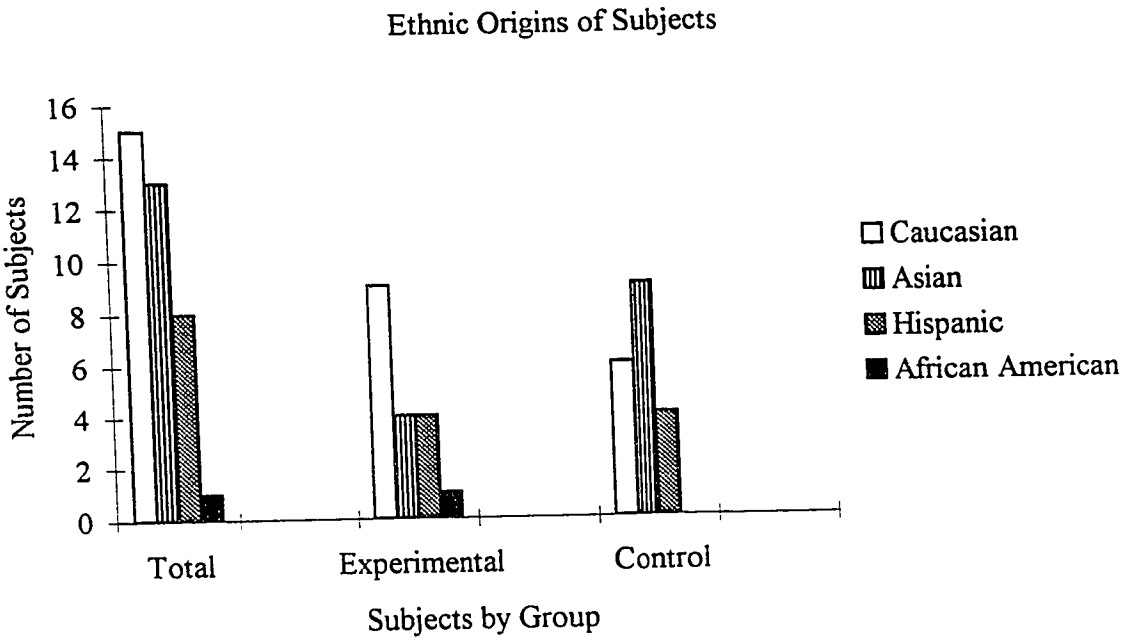

Figure 3: Ethnic Origins of Subjects

Research Question 1

How many workers who have at least five valid responses will receive a quality of work life score of at least five in looking at the items dealing with being a happy worker, being a good worker, being a fast worker, making at least $60, spending money on food/movie/music, and placing paychecks in the bank/converting paychecks into money?

Out of 37 subjects 16 subjects or 43% of the subjects who had at least five valid responses received a quality of work life score of at least a five. Out of the 16 subjects 12 subjects received a score of at least a five on the Pictorial Quality of Work Life Survey, and 4 subjects received a quality of work life score of at least a five on the Non-Pictorial Quality of Work Life Survey. Twenty-one subjects or 57% of the subjects received a quality of work life score of less than five. Out of the 21 subjects 6 subjects received a score of less than five on the Pictorial Quality of Work Life Survey, and 15 subjects received a score of less than five on the Non-Pictorial Quality of Work Life Survey. Table 1 displays the number of subjects and their quality of work life score by the type of survey.

Table 1

Frequency Distribution of Quality of Work Life Scores

Type of Survey	Score					
	6	5	4	3	2	1
Pictorial (n = 18)	3	9	4	2	--	--
Non-Pictorial (n = 19)	2	2	9	4	1	1

Research Question 2

Will 80% or more responses match actual worker wages within $10?

No, there were not 80% or more responses that matched actual worker wages within $10. There were 51% of the subjects or 19 subjects that matched actual worker wages within $10, and there were 49% of the subjects or 18 subjects that guessed their wages more or less than $10. Out of the 18 subjects who guessed their wages more or less than $10, 8 subjects guessed more than they made, 6 subjects guessed less than they made, and 4 did not know what they made. The ranges of guessing consisted of $55 too much to $65 too little.

Hypothesis 1

There is no significant difference in the number of "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

A statistical significance testing procedure, the chi square (χ^2) test of significance, was used to determine if there was a significant difference in known and "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. Known and "I don't know" responses were totaled for each type of survey: the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. The chi square (χ^2) test showed no significant difference in the number of "I don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey:

χ^2 (1, N = 333) = .5287, p > .05, p = .50.

Table 2 shows the number of known and "I don't know" responses in both the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

Table 2

Known and "I Don't Know" Responses by Type of Survey

Type of Survey	Type of Responses	
	Known	"I Don't Know"
Pictorial	159	3
Non-Pictorial	162	9

Thus, the null hypothesis was accepted.

Hypothesis 2

There is no significant difference in inter-item validity with the items pertaining to being a happy and sad worker.

The chi square (χ^2) test of significance was used to determine if there was a significant difference in inter-item validity with the items pertaining to being a happy and sad worker. Responses were considered valid if the subject answered the happy and sad worker questions both happy, both sad, both O. K., or both "I don't know." If there was a difference in the answers between the happy and sad worker questions, there was no inter-item validity. The investigator summed the number of happy and sad worker answer agreements and the number of no agreements between the happy and sad worker answers.

The chi square (χ^2) test showed there was a significant difference in inter-item validity with the items pertaining to happy and sad worker:

χ^2 (1, $\underline{N} = 37$) = 4.659, $p < .05$, p = .0309.

Table 3 summarizes the number of answer agreements and no agreements in answers for the items pertaining to happy and sad worker between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

Table 3

Agreements and Non-Agreements in Happy and Sad Items by Type of Survey

Type of Survey	Response Agreement	No Response Agreement
Pictorial	18	0
Non-Pictorial	13	6

Thus, the null hypothesis was rejected, and the hypothesis is accepted at the .03 level of significance.

Hypothesis 3

There is no significant difference in inter-item validity with the items pertaining to being a good and bad worker.

The chi square (χ^2) test of significance was used to determine if there was a significant difference in inter-item validity with the items pertaining to being a good and bad worker. Responses were considered valid if the subject answered the good and bad worker questions both good, both bad, or both "I don't know." If there was a difference

in the answers between the good and bad worker questions, there was no inter-item validity. The investigator summed the number of good and bad worker answer agreements and the number of no agreements between the good and bad worker answers. The chi square (χ^2) test showed there was no significant difference in inter-item validity with the items pertaining to good and bad worker:

χ^2 (1, $\underline{N}$ = 37) = .223, $\underline{p}$ > .05, $\underline{p}$ = .6367.

Table 4 summarizes the number of answer agreements and no agreements in answers for the items pertaining to good and bad worker between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

Table 4

Agreements and Non-Agreements in Good and Bad Items by Type of Survey

Type of Survey	Response Agreement	No Response Agreement
Pictorial	17	1
Non-Pictorial	16	3

Thus, the null hypothesis was accepted.

Hypothesis 4

There is no significant difference in inter-item validity with the items pertaining to being a fast and slow worker.

The chi square (χ^2) test of significance was used to determine if there was a significant difference in inter-item validity with the items pertaining to being a fast and

slow worker. Responses were considered valid if the subject answered the fast and slow worker questions both fast, both slow, or both "I don't know." If there was a difference in the answers between the fast and slow worker questions, there was no inter-item validity. The investigator summed the number of fast and slow worker answer agreements and the number of no agreements between the fast and slow worker answers. The chi square (χ^2) test showed there was no significant difference in inter-item validity with the items pertaining to fast and slow worker:

χ^2 (1, $\underline{N}$ = 37) = 2.346, $\underline{p}$ > .05, $\underline{p}$ = .1256.

Table 5 summarizes the number of answer agreements and no agreements in answers for the items pertaining to fast and slow worker between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey.

Table 5

Agreements and Non-Agreements in Fast and Slow Items by Type of Survey

Type of Survey	Response Agreement	No Response Agreement
Pictorial	18	0
Non-Pictorial	15	4

Thus, the null hypothesis was accepted.

Discussion

In 1991 Tse stated there is a need for further research to determine subjective and objective standards of quality of life and to develop concrete guidelines to improve the quality of lives of people with mental retardation. This study attempted to answer both of these recommendations by first creating two surveys: the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. Second, this study suggests implications in quality of work life for adults with mental retardation.

Looking at the structural components of quality of life, this study investigated what Schalock (1991) referred to as examples of objective life conditions: employment and savings. It also addressed the objective critical factors of income and occupations and the subjective living critical factors of life satisfaction and self-perception of skills. Both the Pictorial and Non-Pictorial Quality of Work Life measured three of Schalock's 1991 and 1993 quality of life indicators: independence and decision-making skills, productivity, and satisfaction. Survey items that measured independence and decision-making skills pertained to how subjects spent money and what they did with their paychecks. Productivity was measured by items pertaining to work speed and paycheck earnings. Satisfaction with services is measured by the item pertaining to being a happy or sad worker. One of Goode's 1989 principles of quality of life that guided this study was that quality of life is defined by the subject's own perceptions and evaluations of his own situation.

In terms of development of both the Pictorial and Non-Pictorial Quality of Work Life Survey, the employment-related items in the Quality of Life Index created by

Schalock, Keith, Hoffman, and Karan in 1989 were reviewed. The items pertaining to being a happy and a sad worker are similar to the item by Schalock et al. on "Does your job make you feel good?" (p. 27). The items the amount of money earned and how money is spent is related to the item by Schalock et al. on "Do you earn enough money to pay for all the things you need?" (p. 27). Both the Pictorial and Non-Pictorial Quality of Work Life Survey did measure Schalock's 1986 employment-related outcome of wages. In the review of literature there was no discovery of a pictorial survey format and a survey that measured only quality of work life.

In reviewing studies that address the vocational applications of quality of life, all of the studies appeared to deal with different types populations of adults with mental retardation than this study under investigation. Whereas this study's subjects consisted of adults with mental retardation in a work adjustment program, the other studies' subjects were adults with mental retardation in the following types of programs: competitive versus sheltered employment (Inge et al., 1988; Jiranek & Kirby, 1990), moderate and severe levels of mental retardation (Nisbet & York, 1989), four levels of mental retardation (Frank et al., 1990), high school graduates (Roessler et al, 1990; Affleck et al., 1990), types of residential settings (Burchard et al., 1991), supported employment (McCaughrin, 1993; Test et al., 1993), and cognitive and developmental disabilities in general (Wehmeyer, 1994).

Vocational applications of other studies consisted of quality of life in general (Inge et al., 1988; Frank et al., 1990; Affleck et al., 1990; Jiranek & Kirby, 1990; Burchard et al., 1991), job satisfaction (Nisbet & York, 1989; Test et al., 1993), Life Centered Career

Education competencies (Roessler et al, 1990), cost effectiveness by employment classification (McCaughrin, 1993), and perceptions of control (Wehmeyer, 1994). This appears to be the only study that measures the term coined as quality of work life.

Six conclusions were drawn from this study. About half of the subjects had a high level of quality of work life, which could mean about half of the subjects were satisfied with their work adjustment programming. Second, a little more than half of the subject knew their actual wages within $10; perhaps the other half of the subjects have difficulty with the cognitive processing of money management. The third conclusion was there was no significant difference in the number of "I don't know" responses between the Pictorial and Non-Pictorial Surveys; most subjects did not answer "I don't know" perhaps because they have strong feelings about their work. There was a significant difference between the Pictorial and Non-Pictorial Survey in inter-item validity with items pertaining to happy and sad workers; it appeared most worker wanted to associate with being happy than sad. Fifth, there was no significant difference between the Pictorial and Non-Pictorial Survey in inter-item validity with items pertaining to good and bad worker; workers in this item rarely associated with being bad, which perhaps demonstrates a higher level of self-esteem. Lastly, there was no significant difference between the Pictorial and Non-Pictorial Survey in inter-item validity with items pertaining to fast and slow workers; on these two items workers seemed less sure to the meanings of fast and slow.

Implications

There are three applications of this research. First, the Quality of Work Life Survey can be used as a program evaluation for a variety of programs: work adjustment,

supported employment, competitive employment, and sheltered employment. Depending on the worker's cognitive functioning level, either the Pictorial or Non-Pictorial versions of the Quality of Work Life Surveys could be administered by an administrator or self-administered.

Second, there is a need to teach money management on a consistent basis in all types of employment programs. This study noted only slightly more than half of the subjects knew the amount of their paychecks within $10. While consumer economics was part of the curriculum, it was not taught on a daily basis. It is recommended that it is taught daily. Perhaps on pay days, supervisors could train the workers about money management by making a trip to the bank to deposit the paycheck or exchange paychecks into cash.

Lastly, the pictures used in the Pictorial Quality of Work Life Survey could be employed in the worker's daily vocabulary. Some of the subjects in the study used non-verbal modes of communication. One type of non-verbal communication used is pictures. These pictures could be used daily to help the supervisor identify with how a worker may be feeling.

Recommendations for Future Research

There are three suggestions for future research. First, there is a need for a larger sample size. In order to better measure the inter-item validity, it is recommended that a sample size of at least 100 subjects be employed.

Second, it is recommended a longitudinal design be used to see if there are any changes in their quality of work life. Perhaps, subjects could receive the survey at intervals of 6, 12, and 18 months.

Third, it is recommended that the subjects receive both the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. This would demonstrate which format would be easier for the worker to comprehend.

CHAPTER 5

SUMMARY

The focus of this study was (a) to develop a survey to measure the quality of work life of adults with mental retardation, (b) to determine if there is a significant difference in responses between using a pictorial and a non-pictorial versions of the survey, and (c) to investigate the quality of work life of adults with mental retardation enrolled in a work adjustment program at an agency in Santa Clara County.

Thirty-seven subjects participated in the study. The subjects consisted of an equal proportion of males and females with an average age of 33. The ethnic origins of the subjects were a fairly equal split of Caucasian Americans and Asian Americans, and there was a lesser proportion of Hispanic Americans.

The procedure consisted of 18 subjects in the experimental group receiving the Pictorial Quality of Work Life Survey, and 19 subjects in the control group receiving the Non-Pictorial Quality of Work Life Survey. Each survey had nine items which asked the worker's judgments of whether or not the subject is a happy, sad, good, bad, fast, or slow worker. In addition, there were items measuring the subject's knowledge of the amount of earnings, how money is spent, and what is done with the paycheck.

The study investigated two research questions and four hypotheses. In reviewing the results, there were 16 out of 37 subjects who had a high quality of work life with a score of at least a five on the survey. Instead of 80% or more responses matching actual wages, there were 51% of subjects' responses matching actual wages. There was an acceptance of null hypothesis 1: There is no significant difference in the number of "I

don't know" responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey. There was a rejection of null hypothesis 2: There is a significant difference in inter-item validity with the items pertaining to being a happy and sad worker. There was an acceptance of null hypothesis 3: There is no significant difference in inter-item validity with the items pertaining to being a good and bad worker. Lastly, there was an acceptance of null hypothesis 4: There is no significant difference in inter-item validity with the items pertaining to being a fast and slow worker.

Six conclusions were drawn from this study. About half of the subjects had a high level of quality of work life, which could mean about half of the subjects were satisfied with their work adjustment programming. Second, a little more than half of the subject knew their actual wages within $10; perhaps the other half of the subjects have difficulty with the cognitive processing of money management. The third conclusion was there was no significant difference in the number of "I don't know" responses between the Pictorial and Non-Pictorial Surveys; most subjects did not answer "I don't know" perhaps because they have strong feelings about their work. There was a significant difference between the Pictorial and Non-Pictorial Survey in inter-item validity with items pertaining to happy and sad workers; it appeared most worker wanted to associate with being happy than sad. Fifth, there was no significant difference between the Pictorial and Non-Pictorial Survey in inter-item validity with items pertaining to good and bad worker; workers in this item rarely associated with being bad, which perhaps demonstrates a higher level of self-esteem. Lastly, there was no significant difference between the Pictorial and Non-Pictorial Survey

in inter-item validity with items pertaining to fast and slow workers; on these two items workers seemed less sure to the meanings of fast and slow.

Future Implications

The following is a list of three future implications of this research:

1. The Quality of Work Life Survey can be used as a program evaluation for a variety of programs: work adjustment, supported employment, competitive employment, and sheltered employment.

2. There is a need to teach on a consistent basis money management in all types of employment programs. Perhaps on pay days, supervisors could train the workers about money management by making a trip to the bank to deposit the paycheck or exchange it into cash.

3. The pictures used in the Pictorial Quality of Work Life Survey could be employed in the worker daily vocabulary.

These future implications would be helpful for supervisors who work with adults with mental retardation with a variety of cognitive levels. By utilizing such approaches, it assists the worker to be satisfied with their jobs, and it make for a stronger work team on the whole.

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APPENDIX A

March 1, 1996

Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research
San Jose State University
One Washington Square
San Jose, CA 95192-0078

Dear Dr. Stanford:

The Work Adjustment Services program agrees to participate in investigator Theresa Woo's research project entitled "Quality of Work Life for Adults with Mental Retardation." We grant permission to Theresa Woo to administer the Quality of Work Life Survey to 40 workers enrolled in the Work Adjustment Services program. We realize that this research project meets partial fulfillment of the requirements for the degree of Master of Arts.

If you have any questions regarding this agreement between San Jose State University and our agency, you can contact me.

Sincerely,

Assistant Vice President
Work Adjustment Services

cc: Theresa Woo, San Jose State University

APPENDIX B

PROTOCOL FOR REVIEW BY THE HUMAN SUBJECTS-INSTITUTIONAL REVIEW BOARD (HS-IRB)

1. Please see the attached HS-IRB cover sheet.

2. The primary purpose of this study is to determine the difference in effectiveness between a pictorial and non-pictorial survey of quality of work life for adults with mental retardation. The secondary purpose of this study is to explore the quality of work life of adults who are enrolled in a work adjustment program in Santa Clara County.

3. The following research questions will be addressed in this research study:
   a) Is there a significant difference in responses between the Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey?
   b) What is the level of quality of work life for adults with mental retardation enrolled in a work adjustment program?

4. Methods

   Subjects

   a) The subjects in this study will consist of 40 adults with mild, moderate, or severe levels of mental retardation between the ages of 22 and 60 who are enrolled in a work adjustment program.
   b) All workers in the work adjustment program will be contacted by the investigator, and only subjects with signed consents will participate in the study.
   c) The reason for employing these subjects is twofold. First, it was discovered in a review of literature that there were no pictorial quality of work life surveys developed for adults with mental retardation. Second, the work adjustment program under investigation is a relatively new program, and it would be interesting to determine the quality of work life for adults with mental retardation who have a small amount of work experience.
   d) The results of the study should provide recommendations for improvements in the program and the subjects' choices of jobs.
   e) No risks are anticipated, besides the time it will take to answer the questions. Anonymity will be kept.
   f) No compensation will be awarded to the subjects for their participation in this study with the exception of their participation to the research.
   g) The subjects will not be identified with the data. The subjects will be anonymous to the researcher in order to show respect the subjects' confidentiality as well as to encourage honest responses from the subjects.

Materials and Devices

a) The Pictorial Quality of Work Life Survey and the Non-Pictorial Quality of Work Life Survey were created for this research study to determine the differences in responses from using a pictorial and non-pictorial format. Both surveys consist of nine questions with multiple choice responses. Whereas the Pictorial Quality of Work Life Survey consists of the questions and multiple choice responses both in pictorial and written format, the Non-Pictorial Quality of Work Life Survey provides questions and multiple choice responses in written format only.

Procedures

a) Upon receiving written consent from the work adjustment program, the investigator will meet with each worker in the work adjustment program to explain purpose and nature of the study and obtain their signed consent. If the worker is conserved, a call will be placed to the conservator the explain the purpose and nature of the study; the conservator consent forms will be sent home with the worker, and signatures will be obtained by both conservator and worker and returned to the investigator. For subjects receiving the Pictorial Quality of Work Life Survey the questions will be read to the subjects by the investigator as well as shown pictorially; the subjects will be asked to point to the response that most closely represents how they feel. For subjects receiving the Non-Pictorial Quality of Work Life Survey, the investigator will read the questions and ask the subjects to verbally state their choices. Subjects will be verbally thanked for their participation in the study. The study will be conducted in March 1996, and the results and conclusions of the study will be shared.

b) The research will be conducted by the investigator at a work adjustment program in March 1996.

Confidentiality

Confidentiality will be maintained by assigning a number to each worker. The data collected will be used only by the investigator and her academic advisor for the purpose of conducting the study. Survey data will be secured in a locked cabinet during the duration of the study. Anonymity of the subjects will be strictly kept, and all materials will be destroyed at the conclusion of the study.

5. Subject and Conservator Consent Forms are attached.

6. Copies of the data collection instruments are attached.

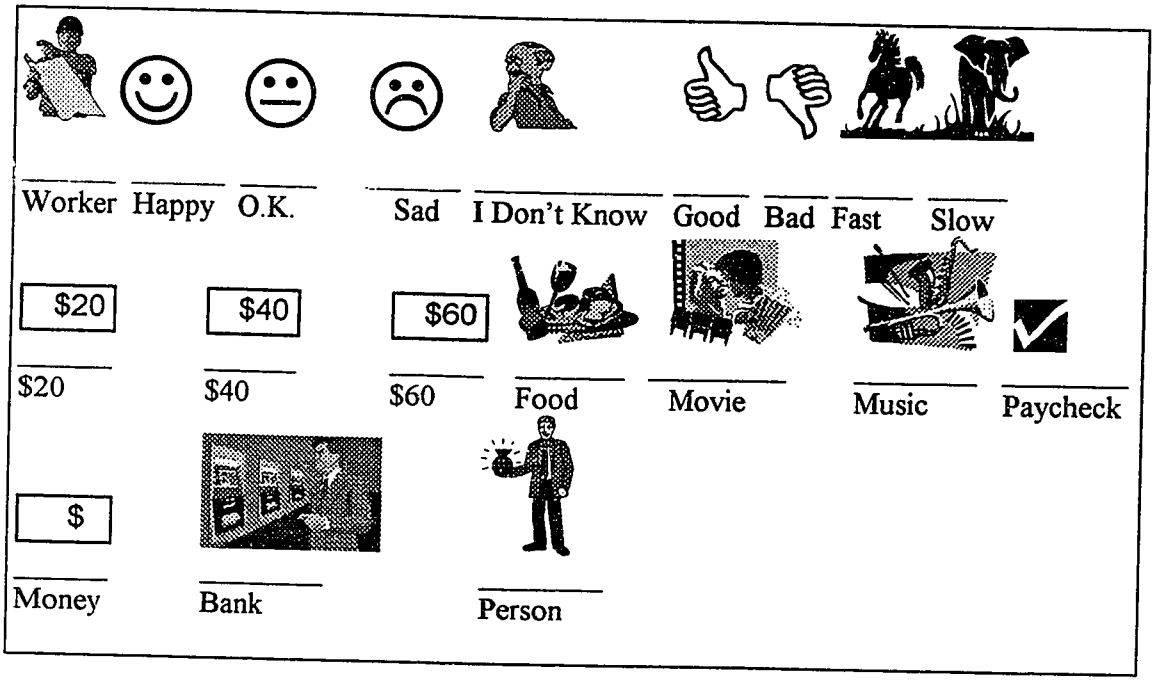
7. Copies of the agreement from the participating agency is attached.

APPENDIX C

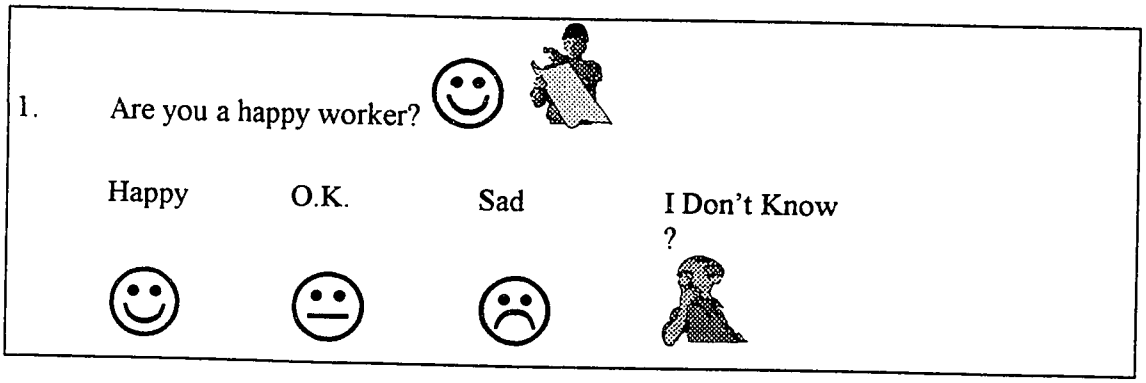
PICTORIAL QUALITY OF WORK LIFE SURVEY

WORKER'S IDENTIFICATION NUMBER_____ DATE_____

I. Practice Test: Please write the word or phrase the worker stated that describes each of the pictures below. If the worker is unable to verbally communicate or sign, please ask the worker to point to the picture that matches the word or phrase communicated by the supervisor.



II. The Worker's Judgments: Please circle the response which most closely represents how the worker feels.



2. Are you a sad worker? 

Happy	O.K.	Sad	I Don't Know ?
			

3. Are you a good worker? 

Good	Bad	I Don't Know ?
		

4. Are you a bad worker? 

Good	Bad	I Don't Know ?
		

5. Are you a fast worker? 

Fast  Slow  I Don't Know ? 

6. Are you a slow worker? 

Fast  Slow  I Don't Know ? 

III. The Worker's Background: Please circle the response that is most true about the worker.

7. How much money do you earn on every paycheck? $ 

$20 $40 $60 or more I Don't Know ?

$20 $40 $60 

8. How do you spend your money?  $

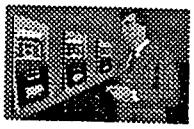
Food 

Movie 

Music 

I Don't Know ?

9. What do you do with your paycheck?  ☑

Bank 

Person 

Money $

I Don't Know ?

Additional Comments If Any

APPENDIX D

NON-PICTORIAL QUALITY OF WORK LIFE SURVEY

WORKER'S IDENTIFICATION NUMBER_____ DATE_____

I. The Worker's Judgments: Please circle the response which most closely represents how the worker feels.

1. Are you a happy worker?

   Happy O.K. Sad I Don't Know

2. Are you a sad worker?

   Happy O.K. Sad I Don't Know

3. Are you a good worker?

   Good Bad I Don't Know

4. Are you a bad worker?

   Good Bad I Don't Know

5. Are you a fast worker?

Fast Slow I Don't Know

6. Are you a slow worker?

Fast Slow I Don't Know

II. The Worker's Background: Please circle the response that is most true about the worker.

7. How much money do you earn on every paycheck?

$20 $40 $60 or more I Don't Know

8. How do you spend your money?

Food Movie Music I Don't Know

9. What do you do with your paycheck?

Bank Person Money I Don't Know

Additional Comments If Any

APPENDIX E

Agreement to Participate in Research

Responsible Investigator: Theresa Woo

Title of Protocol: Quality of Work Life Survey

1. I have been asked to participate in a research study investigating the quality of work life of adults with mental retardation who are enrolled in the Work Adjustment Services program at HOPE Rehabilitation Services.

2. I will be asked to answer the questions read to me from the Quality of Work Life Survey which will be administered at HOPE Rehabilitation Services during the spring 1996 semester, and it will take about 15 minutes.

3. No risks are anticipated, besides the time it will take to answer the questions. Anonymity will be kept.

4. The result of the study will be the formulation of a new survey, the Quality of Work Life Survey, and there should be an increase in understanding of quality of work life for adults with mental retardation.

5. The results of this study may be published, but no information that could identify you will be included.

6. Questions about the research may be addressed to the investigator at (408) 282-0461. Complaints about the research may be presented to the Department Chair, Ted Montemurro, Ph.D., at (408) 924-3700. Questions or complaints about research, subjects' rights, or research-related injury may be presented to Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and research at (408) 924-2480.

7. Your consent is given voluntarily. You may refuse to participate in the study or in any part of the study. If you decide to participate in the study, you are free to withdraw at any time with no affect on your relations with San Jose State University or HOPE Rehabilitation Services.

8. You have received a signed and dated copy of the consent form.

- **Your signature on this document indicates your agreement to participate in this study.**
- **The signature of the investigator on this document indicates agreement to include the signed subject in this study and attestation that the subject has been fully informed of his or her rights.**

_____

Subject's Signature Date

_____

Investigator's Signature Date

APPENDIX F

Agreement to Participate in Research

Responsible Investigator: Theresa Woo

Title of Protocol: Quality of Work Life Survey

1. _____, my conserved adult, has been asked to participate in a research study investigating the quality of work life of adults with mental retardation who are enrolled in the Work Adjustment Services program.

2. My conserved adult will be asked to answer the questions read to me from the Quality of Work Life Survey which will be administered at the Work Adjustment Services program during the spring 1996 semester, and it will take about 15 minutes.

3. No risks are anticipated, besides the time it will take to answer the questions. Anonymity will be kept.

4. The result of the study will be the formulation of a new survey, the Quality of Work Life Survey, and there should be an increase in understanding of quality of work life for adults with mental retardation.

5. The results of this study may be published, but no information that could identify my conserved adult will be included.

6. Questions about the research may be addressed to the investigator at (408) 282-0461. Complaints about the research may be presented to the Department Chair, Ted Montemurro, Ph.D., at (408) 924-3700. Questions or complaints about research, subjects' rights, or research-related injury may be presented to Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and research at (408) 924-2480.

7. Your consent is given voluntarily. You may refuse to have your conserved adult participate in the study or in any part of the study. If you decide permit your conserved adult to participate in the study, you are free to have him or her withdraw at any time with no affect on your as well as his or her relations with San Jose State University or Work Adjustment Services program.

8. You have received a signed and dated copy of the consent form.

- **Your signature on this document indicates your agreement to allow your conserved adult to participate in this study.**
- **The signature of the investigator on this document indicates agreement to include the signed subject in this study and attestation that the subject has been fully informed of his or her rights.**

Subject's Signature Date

Conservator's Signature Date

Investigator's Signature Date